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**Title**

*Ambulatory Medication Safety Events Before and After the COVID-19 Shutdown*

**Priority 1 (Research Category)**

Prescribing and pharmacotherapeutics

**Presenters**

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**Abstract**

Context: On March 13, 2020, the Texas Governor ordered that all non-emergency clinics close, with conversion to telehealth care. Objective: We aimed to assess the effect of this change on medication safety in a high-risk population. Study Design: Retrospective pre-/post-closure order. Setting: Primary care clinic of a safety net hospital system. Population: 52 adult patients with poorly controlled diabetes (Lowest A1C  $\geq 8.0$ , highest  $\geq 12.0$ ), 4+ visits, and prescribed 4+ chronic medications the year before COVID-19. Instrument: Charts were abstracted for every clinic visit one year before and one year after the shutdown date. Each clinic note was read searching for reports of any possible difficulty in patients receiving appropriate medications. Outcome Measures: Clinic or telehealth visits, medications, utilization, and medication safety events. Results: On March 2019, the demographics were age  $50.0 \pm 9.7$  years, 69% female, 25% White, 31% Hispanic, 38% African-American, 71% English as primary language. There were similar numbers of patient touches (7.33 clinic visits vs. 4.67 clinic visits plus 3.58 telehealth visits), cancellations (2.56 vs. 3.21), and no-shows (2.12 vs. 2.31). There was no change in the number of prescribed medications pre-/post-shutdown (10.6 vs. 10.8). There were more significant adverse medication events pre-COVID vs. post-COVID (6/380 (1.6%) vs. 17/429 (4.0%),  $p=0.04$ ). Of all recorded imperfections in medication usage, the majority were in diabetic medications 57/78 (73.1%), and of those, most involved insulin 43/57 (75.4%). A wide variety of patient social determinant and system factors caused the observed medication administration difficulties. Conclusions: The transition from in-person only to telehealth visits before/after the beginning of the COVID-19 pandemic was not associated with major changes in primary care medication management. Separate from the type of visit and the COVID-19 era challenges, the majority of adverse events were hypoglycemia associated with insulin usage.